

*Duhring (L.A.)*

# PRURITUS HIEMALIS:

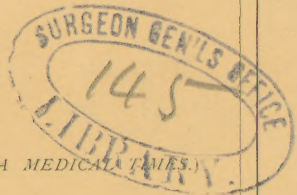
AN UNDESCRIBED FORM OF PRURITUS.

BY

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LOUIS A. DUHRING, M.D.,

CLINICAL LECTURER UPON DISEASES OF THE SKIN IN THE UNIVERSITY OF  
PENNSYLVANIA.

(REPRINTED FROM THE PHILADELPHIA MEDICAL TIMES.)



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of  
Dr. Louis A. Duhring.

## PRURITUS HIEMALIS.

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IN the present paper I wish to describe and direct attention to a certain affection or condition of the skin of which there is no mention in any of our treatises upon cutaneous diseases or elsewhere. Quite a number of examples have been brought to my notice within the last few years; in some instances the trouble being of such severity as to call for careful investigation and subsequent treatment. Moreover, the affection about to be described has never, so far as I am aware, been separated from several other conditions of a similar nature with which it has heretofore been grouped. But the symptoms, course, and cause of the disorder appear to me to be so clearly defined as to merit a distinct and separate consideration.

The trouble varies much in degree, at one time being of the most serious inconvenience to the patient, and at other times being of so mild a character that medical advice is not sought. Thus, it may be so slight as scarcely to deserve the name disease, or, on the other hand, so severe that the individual is rendered most miserable by it. When of a mild type, for reasons presently to be mentioned, the patient endures the condition without undergoing treatment, for experience has taught him that the condition is a temporary one, and will, in due time, subside spontaneously. Previous attacks have taught him that sooner or later, in the

course of a few weeks or longer, his skin will again be in a normal state, and this occurrence of the change to health is anxiously looked for. The skin sooner or later rights itself without treatment, and the patient remains free for a certain period. But, on the other hand, it may occasion such discomfort and distress that the person anxiously consults his physician, and willingly submits to any treatment, with a view of obtaining at least temporary relief. The symptoms may be so annoying and disagreeable as to render existence most unhappy for the time being. For the reason, then, that it is a trouble by no means rare, as well as one frequently requiring attention from the physician, I shall offer the result of my observations. I have designated the affection *Pruritus Hiemalis*, for reasons which I think will appear satisfactory.

*Symptoms.*—The affection consists in a peculiar state of irritability of the skin, which manifests itself in the autumn or even as late as the winter season. Generally it first makes its appearance with the advent of our cool October weather, or at about the time of frost. It may, however, not be noticed until later in the season—as late as December. In Philadelphia it commonly occurs towards the latter part of October, and continues usually until the cold weather has been thoroughly established, or even through the winter. Its duration is variable. In some cases it lasts but for a few days or weeks, and then disappears entirely. In other instances it remains present persistently for several months or longer; but it is never present after the cold weather has passed. With spring it always vanishes, to be absent at least until the succeeding autumn. It is rare, however, to observe it continuing in any marked degree through the entire winter. It is an affection of the cool weather only, and more



particularly of the fall and winter season. It is never present in the summer months. It is found upon individuals of all ages, from childhood to old age. No particular period of life appears to be more susceptible than another. I have never met with it in young children, nor indeed much before the age of puberty. It occurs in both sexes in about the same proportion. It may exist upon any part of the body, though prone to attack certain regions in an almost invariable manner. It is confined, not entirely, but to a great extent, to the lower extremities, and it is here that it shows itself typically. It occasionally is found upon the arms, and more rarely upon the trunk, but never to the same extent and degree as upon the thighs, buttocks, and legs. The hands, feet, face, and scalp are never involved. Its common seat is upon the inner surface of the thighs, about the knees, in the popliteal space, upon the calves of the legs, and around the ankles. It affects the non-hairy portions of the limbs rather than the hairy parts. The outer surface of the thigh and the region of the tibia are more rarely involved than, for example, the calf of the leg. The calves of the legs are favorite localities for the trouble. It attacks both lower extremities symmetrically. Occasionally only the ankles and calves are affected, but in most cases it extends well up upon the thigh. It is not a localized affection,—that is, cannot be said to exist upon any given portion of the body exclusively. The sensation may be most intense here or there, as the case may be, or it may move from time to time from one locality to another. But the same regions are usually attacked day after day, and the symptoms remain there until they disappear entirely; and hence, although it cannot be said to be localized, yet, if present at all, it is almost invariably to be found upon the regions which I have particularized.

The affection may be said to be characterized by a certain itching of the skin, more especially of the lower extremities, which comes upon the individual rather suddenly, in the course of a few days, during the autumn or early winter, and which may be described as an itching, smarting, tingling, burning sensation, as though the person were clothed in new flannel or woollen-wear, and the same were rubbing and chafing the skin. The amount of irritation present varies with different cases, and may be either very slight, so as barely to attract attention, or it may be so severe and troublesome as to cause the sufferer very great annoyance and distress. It possesses one peculiarity which is striking, and generally present,—namely, the tendency to become aggravated towards night. It is always worse in the evening than at any other period in the twenty-four hours, and in many cases is present only at this time. In the mild form it is scarcely noticeable during the day, coming on with evening, and continuing through the night until sooner or later the patient retires and falls asleep. It is when taking off the clothes, at night especially, that the itching is most noticeable and severe. At this time the desire to scratch and rub the affected parts is almost irresistible, and the person usually gratifies this desire either until some relief is obtained or sleep terminates the suffering. A certain amount of relief follows severe scratching, and a marked burning sensation takes the place of the itching, which is far more grateful to the feelings of the patient. According to the amount of disturbance and the irritability of the cutaneous nerves, will the sleep be more or less interfered with. At times the skin is so excited and disturbed that the person obtains but imperfect rest, and at least the earlier part of the night is passed in scratching and in making cooling applications of one kind or another to the parts.



In other cases the itching is simply unpleasant and annoying upon retiring, but not sufficiently so to interfere with sleep.

Upon awaking in the morning, a little of the pruritus may still exist, but usually it has quite subsided, and no further thought is given the subject until the following evening, when the same symptoms reappear, and are exactly repeated. In this manner it continues day after day, with but slight intermission, until, at the end of an indefinite period, it gradually vanishes. The patient now remains free of it until the next autumn, when in all probability it will recur and run a similar course. It may relapse in this way year after year, or at the end of the first attack it may disappear, not to return. It is apt, however, to attack the same individual several seasons in succession, and then remain away permanently. It may also continue through a lifetime.

There is no *primary* eruption of any kind connected with the affection, either at its commencement or at any time during its course. This is an important point to be remembered in connection with the diagnosis. If the skin be minutely and carefully examined at the beginning of an attack, we see nothing indicative of disease, or anything, indeed, which would enable one to account for the itching present. Inasmuch as the condition is always most marked and typical about the lower extremities, I shall describe the appearance of the skin as seen in a well-defined case the first day of its existence, for later the appearances are quite different, and call for a separate description. When the trouble is first noticed, then, the skin looks quite healthy, with the exception that it is apt to be somewhat dry. The epidermis seems normal, and there is no desquamation. The skin is neither hot nor hyperæmic. The hair-follicles are neither inflamed nor ob-

structed, and appear to be in order. There is no accumulation of epidermis or other matter about their openings. They are not prominent nor visibly altered. In fact, after close inspection, it is impossible to distinguish any sign of derangement in connection with the follicles, which parts, upon first thought, we might imagine to be the seat of the disorder. Here and there an inflamed follicle may exist, but this condition, however, occurs only occasionally at this stage of the trouble.

The condition of the sudoriferous glands it is difficult to determine, further than that they do not work very actively; but there is no reason for supposing that they are in any serious way deranged, or more so upon these localities than upon other portions of the body. There is no perceptible functional derangement of the skin. Neither is there any organic alteration observable. The subjective symptoms, which the patient communicates, alone convey any idea of the condition.

But if the case be seen several days or longer after the first symptoms, the skin looks different. Certain secondary changes now exist which, if error is to be avoided, must be viewed as such. For to regard these *secondary* lesions, which at this stage are present, as the *primary* lesions of the affection, would certainly be misleading as to the nature of the disorder. It must be remembered, too, that this stage is the one in which cases are usually seen, for advice from the physician is rarely sought before the trouble has existed for some time.

The skin now may be rough and harsh, resembling xeroderma or mild ichthyosis. Many of the hair-follicles are red and more or less inflamed and irritated, with an accumulation of epidermis and sebaceous matter about their openings. Many of the hairs are also torn and broken off short, close to their follicles. Here and there, or over a consider-

able surface, the whole skin looks red and irritated, as though it had been well rubbed and scratched. Upon close inspection, the epidermis bears unmistakable evidence of having been torn and wounded. The marks of the finger-nails are everywhere to be seen, often in the form of long streaks up and down the limbs. In fact, all the phenomena just detailed, which are so marked and prominent, are produced solely by the hands of the patient. They are all *secondary* lesions. They are the *results* of the pruritus. To view them as the primary lesions would give a very wrong idea concerning the nature of the trouble. The line of distinction between the primary and the secondary symptoms must be clearly drawn. The primary symptoms are subjective alone. The secondary symptoms, those usually seen clinically, are both subjective and objective, the latter being an artificial product, caused by external irritants.

Such is a description of the disorder as I have encountered it through a number of seasons, and which it has been my pleasure to study and note as opportunity for observation upon new cases offered. There are other points of interest to be mentioned, which it will be more convenient to consider under the various heads of Etiology, Diagnosis, and Treatment.

*Etiology.*—In turning our attention to the cause of this trouble, there are a number of facts which I have observed and noted, and which now present themselves for consideration. From these alone we shall be obliged to draw our conclusions, be they satisfactory or not, for they constitute our only aid and guide in endeavoring to ascertain the cause. One important observation, which has been universally noted, determines the fact that the condition is intimately associated with atmospheric changes. It is emphatically an affection of the cold weather,



at the commencement of which it invariably establishes itself. With the first decided and permanent change of the fall season, with the first ice, it is usual to note its presence.

Now, this fact is observed not in one, but in all cases. And here it must be remembered that the observations which I am about to detail refer exclusively to the latitude and climate of Philadelphia. What the conditions may be a thousand miles north or south of this point, I am not prepared at present to state definitely; but, from memoranda in my possession,\* the affection also manifests itself very commonly in more northern latitudes. In southern countries it is unquestionably more rare, if indeed it occurs at all. But upon this point I have no reliable data. In England, inasmuch as no writer upon the subject of diseases and affections of the skin has referred to the condition, we are warranted in assuming that it is very rare. As a student of dermatology I passed several months of the autumn and winter season in London, attending daily large clinics of cutaneous diseases; but I do not recall ever having encountered any cases of the trouble, notwithstanding every variety of disease and alteration of the skin presented itself. The works of English writers upon dermatology do not so much as allude to its occurrence. My experience in France and Southern Germany, especially in Vienna, extending over a period of a whole autumn and winter season at the two largest daily clinics for diseases of the skin in the world, was similar to that in London, the condition never having been noticed. Nor do the German writers mention its existence in their treatises upon cutaneous disorders. But to return.

It occurs in persons otherwise in excellent health.

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\* I am indebted to Dr. Wigglesworth, of Boston, for certain notes relating to the affection as there noticed by him.

The various other functions of the economy appear to be in perfect order. The nervous system, so far as can be ascertained by symptoms, shows no signs of general impairment or derangement. The bowels are not constipated, nor are any of the secretions apparently abnormal.

The affection is found upon people of all ages, and is not common to any particular period of life. It is observed upon the young as well as the old. As already stated, it occurs in both males and females. At times it is seen in several members of the same family. It is found equally among those who live in luxury and comfort, and those dwelling in poverty. It occurs among the black race. It is as common in the houses of the wealthy as it is in our almshouse. No class of society is exempt. It is not a condition caused, or in any way influenced, by neglect of person or by inattention to cleanliness, for it exists in no greater proportion among the dirty and unwashed than among the clean. It is as frequent among bathers as among those who never use the bath. It is present both among those who bathe in cold and those who bathe in warm water. It is as common among those who employ the bath every day as among those who use it more seldom. From these facts it will be noticed that water possesses very little influence in either its prevention or its causation.

Here it will be in place to refer to a series of investigations which I have made during the past month (December). Feeling assured from previous experience that the condition was in all probability to be found among all classes of a community, I was induced to examine a large number of people. My investigations were undertaken with a view of ascertaining to what extent the disease existed; also, if examples were found, for the purpose of studying them and corroborating previous observa-

tions. The results of my labors may be summarily stated as follows :

The wards of the Philadelphia Hospital (Blockley) and the Almshouse were selected for the purpose.\* Both sexes, all ages, as well the cleanly as the uncleanly in personal habits, were included. Four hundred and twelve persons were examined. Of this number two hundred and twenty-seven were men, and one hundred and eighty-five were women. They consisted of cases from the hospital who neither had been nor were confined to bed, and also paupers from the almshouse.

Out of the whole number, four hundred and twelve, twenty-two cases of the disease were found. Fourteen were among the men, and eight among the women. Each of these cases was carefully examined, and the diagnosis fully established. Some of them were slight, while others were more severe ; but there was no difficulty in recognizing the trouble in any of the cases. None of them, however, were of such severity as several of the cases which have come under my notice in private practice. Among the patients examined there were examples of pruritus whose exact nature seemed somewhat doubtful ; these were excluded.

From these figures it will be seen that upon an average the condition exists in one out of every twenty persons who are otherwise in ordinary health. Whether this ratio holds good among the upper classes, who are better cared for and nourished, we have no means of determining positively at present, but there is every reason to think that it exists quite as frequently.

The disease is not caused by any peculiarity in the clothes worn. This is a point about which I desire to speak more at length, for there exists an

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\* My thanks are due to Dr. Linn, Resident Physician to the hospital, for the many facilities received in pursuing the investigation.



impression in the minds of some that the condition I have been describing is simply an irritation of the hair-follicles and skin, due alone to the coarse, irritating undergarments usually assumed at this season of the year. Flannel and woollen goods, especially, have been cited as being among the direct causes of this pruritus. But investigation and accurate observation, I think, will prove the error of this idea, which has obtained credence with some. Patients themselves at first are likely to attribute it to such causes, but subsequent experience proves even to them that such is not the case.

Now, neither flannel, woollen-wear, nor rough goods of any description, are the direct causes of this form of pruritus, but when they are worn they always tend greatly to aggravate the condition. In fact, not only do such garments increase the itching, but patients find it intolerable to use these fabrics, on account of the irritation which they provoke. The skin is so excited that such goods are unbearable, and the patient soon learns to shun them once and forever. Clothing, whether new or old, whether of wool or of cotton, then, is not the primary cause. For here also clinical experience proves that the affection exists upon persons who have never worn woollen or other rough undergarments of any kind. It occurs in those who are most careful in avoiding harsh irritating underclothes, and also in those who wear only the finest linen next to the skin.

External irritation, therefore, has no share in the primary cause.

*Diagnosis.*—We come now to speak of the diagnosis; and here I must state that the trouble we are considering has manifestly been confounded with other conditions of a similar character. It is by no means a rare disorder. It is to be seen every season

at our clinics for diseases of the skin, but it has been associated and confused with other diseases to such an extent that its individuality has been lost. The fact, moreover, that it may occur in so many grades of severity, from the mild to the most aggravated type, has tended to render its true character somewhat obscure.

The affection primarily is a pruritus of the skin. By the word pruritus I mean a functional disorder of the skin unattended by an eruption or breaking-out, and whose only symptom is itching and other like sensations. In the trouble we are discussing, then, there is no rash or change of any kind in the texture of the skin. The symptoms are simply itching, burning, and smarting of the skin, unaccompanied by any visible cause. Such is the primary condition of the disease. The secondary stage shows us these same symptoms present, and, in addition, other signs which must be here referred to. With the advent of the pruritus the patient at once begins to scratch, the desire being so strong that it is not to be resisted. The rubbing and scratching are often inordinate, and this process continued night after night, for perhaps several hours at a time, necessarily irritates the skin. The epidermis and hair-follicles suffer first, and about the openings of the latter a slight congestion is soon induced, which is kept up by the constant renewal of the cause. The hairs are broken off, twisted, and torn by the violent scratching and rubbing. Many of them are completely destroyed, and usually in a short time certain parts of the limbs are entirely devoid of hairs. The follicles likewise are often obliterated, leaving a smooth, bald surface, which remains. The appearances at this stage may be manifold. The skin may be harsh, dry, and rough; or it may be smooth and natural. This varies according to the general condition of the skin. Frequently a certain amount of

desquamation is present, covering parts of the limb as fine detached bits of epidermis. Scratch-marks can almost always be seen now if looked for, and generally they are noticeable even upon a casual view. Often they are observed as long streaks showing the tracks of the finger-nails. Signs of blood are more rare. Here and there, however, torn and lacerated follicles are seen, some of which may show a small quantity of fresh or dried blood. In some cases congested follicles appear in numbers; they are red, and appear acutely deranged. They may be somewhat obstructed with epithelium and epidermis, or they may assume the look of little elevated points. The intervening skin is generally more or less red and irritable. In other cases, in place of these symptoms nothing abnormal is to be seen, the scratching having little effect in producing artificial lesions.

All these visible symptoms, then, must be considered as artificial, as caused by the operations of the patient in the endeavor to get relief. They subside rapidly upon the cessation of the scratching or other mechanical irritation, whatever it may be, and are soon lost sight of, remaining away until irritation causes them again to appear.

There are two diseases with which *pruritus hiemalis* may be confounded. I refer to *lichen pilaris*, and *prurigo* as understood in this country.

Without entering into any differential diagnosis, I shall point out, in as few words as possible, wherein *pruritus hiemalis* differs from the two conditions just enumerated. The *lichen pilaris* of authors, as the name indicates, is a certain disease involving the hair-follicles of the skin alone. As described by several writers of the present day, it consists in an accumulation of epidermis and sebaceous matter about the openings of the follicles. This state of disease is the primary and only one.



Itching may or may not be present; frequently it is absent. Lichen pilaris is commonly seen upon those who do not bathe, the masses of epidermic product being permitted to remain about the hairs, where, by degrees, a slight conical elevation or papule is formed, the hair or its stump perforating the centre of the accumulation. The affection is usually located upon the thigh, and especially the outer surface, where it is, as a rule, the most marked. Other parts of the body may also be affected in like manner. It is a condition speedily relieved in the majority of instances by the free use of hot baths and soap, which, by mechanically removing the obstruction of the follicles, permits these organs again to assume normal action.

From these few general points it is plain that there can exist no connection between lichen pilaris and the pruritus which I have attempted to describe. It will, I think, be seen that they are totally different conditions, having in reality little or nothing in common excepting that they are apt to occur at about the same time of year; but other affections of the skin are likewise prone to show themselves in the fall and winter, and this, therefore, must be regarded merely as coincidence.

Lichen pilaris has its favorite seat about the outer surface of the thighs. Pruritus hiemalis occurs anywhere upon the limbs, with predilection for the less hairy parts. Lichen pilaris never occurs in the popliteal space. This is one of the common localities in which to find pruritus hiemalis. Many other differences there are, which will be noticed by comparing the symptoms of the two disorders side by side. I dwell upon this subject, because it has long since occurred to me that the pruritus we are discussing, particularly the secondary stage, has been associated with lichen pilaris. In many instances this undoubtedly has been the case.

With *true* prurigo, the prurigo of Hebra, we have the formation of distinct plastic papules: hence this pathological lesion alone is sufficient to distinguish the two affections.

Itching, scratching, excoriations of the skin, and other like symptoms due to the presence of pediculi, are here referred to merely for the purpose of mentioning that they have no share whatever in the pruritus we are discussing. They may possibly exist coincidently at times, just as pediculi are liable to be found upon any person, but they are never the cause of the disease. No more need we even suspect the presence of any of the vegetable parasites as a cause.

Pruritus, or itching of the skin, is a term under which are included many varieties. The word pruritus, used alone, simply informs us that there is an itching of the skin, but fails to state the nature or cause of this sensation. Pruritus may be produced by many causes, due to derangement or disorder of one kind or another in the cutaneous surface. This subject interests us here only to the extent that we may be able to distinguish the variety which we have designated "*hiemalis*" from the many other kinds which are encountered.

Once recognizing the trouble as a pruritus, it seems as though there could be little danger of confusing it with any of the other forms. When all the symptoms are taken into consideration, there really exists no other variety which runs a like course with similar symptoms. The fact of its being an affection of the fall and winter season only, stamps its individuality at once. Its almost exclusive habitat—the lower extremities—is another peculiarity which it is important to remember. The particular parts of the limbs almost invariably involved also must be borne in mind. The almost entire freedom during the day, and the constant

attack towards night, and especially upon the taking off of the clothes, are also characteristic.

*Treatment.*—With reference to the treatment of this form of pruritus, my experience has been confined to some twelve or more cases which have from time to time been under my care; about half being in private practice and the remainder in dispensary practice. I shall briefly give the results of the various remedies employed. First, as to water. Plain water-baths, whether hot or cold, do not appear to exert much permanent influence over it, but, of the two, hot water more often affords some relief. The cold douche to the parts frequently gives temporary ease, and allows the patient an opportunity of getting asleep. A course of continuous daily bathing in cold water, kept up for the season, does not seem to exert any favorable influence. A warm bath daily, however, upon going to bed, will often insure the patient more comfort. Turkish baths have been employed, but with no success in relieving the symptoms. A course of thorough soaping with soda-soap, and afterwards a warm plain bath, has also been used, but with no better result than the simple bath. Where the scratching and other secondary lesions are marked, this course of treatment is not to be recommended, for, the skin being wounded, the soap together with the friction only increases the already irritable skin. Better success, however, may be found in the use of the alkaline bath, which affords more permanent relief than any other treatment with which we are familiar. The bath is prepared by dissolving four ounces of the carbonate of soda in a full-sized bath-tub of warm water. The water should be sufficiently hot to allow the patient to remain in it without feeling at all chilly. The patient should stay quietly immersed in the water for twenty minutes. Upon



getting out of the bath the parts should be slowly and gently dried by patting with a soft dry towel. No rubbing or friction should be indulged in, for, though gratifying at the moment, the after-effects show the skin to have been greatly excited and the trouble aggravated.

The bath should be taken in the evening, just before retiring. The patient should wear a light night-dress, and sleep as coolly as possible; the bed should be hard,—preferably a mattress,—and the covering just sufficiently warm to prevent a feeling of chilliness. The sheets should be of soft muslin or linen.

During the daytime, linen, muslin, or the so-called Canton flannel underclothes should be worn, and all garments of a woolly nature discarded. Everything must be done to soothe the irritable skin in all possible ways. Heated rooms and hot stoves must be avoided. During the evening a walk in the cool air will be much more grateful than the warm room; for if the itching be inordinate in a hot, dry atmosphere, and the patient suddenly go into the open air, it will be found that the symptoms will to a great extent subside. As is well known, these remarks apply to almost all forms of pruritus, but they are especially applicable to the kind I am describing.

As with other varieties of pruritus, simple rubbing, or scratching with the finger-nails, unless it be excessive, does not produce any great amount of laceration of the skin. The patient may scratch quite severely at night, and yet, upon awaking, find very little trace of the performance. This remark supposes the case to be a mild one. If the case be severe, the scratching will necessarily be violent, and the skin will then show signs of the destructive work which has been done.

With reference to internal treatment I have little

to suggest, for, though preparations of iron and arsenic have been employed in certain cases, unfortunately there is nothing favorable to report.

From what has been said, it will be evident that the affection must be regarded as a pruritus. The symptoms from which we are forced to deduce our conclusions are purely subjective, and hence, unless we venture into the domain of theory, our remarks concerning the pathology must soon come to a termination.

In the present state of our knowledge very little is positively known concerning the nature and pathology of neuroses. In the condition described, further than that it is a pruritus of a certain kind, accompanied by a series of well-marked and constant symptoms, our information does not permit us to go. What changes take place in the skin in order to give rise to these symptoms, it is impossible to ascertain. An irritability of the skin, taken as a whole, unquestionably exists, but in what particular organs or parts the derangement occurs it is not possible at present to determine. To suggest that the disease has its origin and is located about the follicles, and that all the symptoms may be referable to derangement of these organs, is a theory attractive and perhaps plausible, but in the present state of our knowledge more definite information is required before adopting this view.

In brief, to venture further in theory as to the exact nature of our trouble is not consistent with the tenor of this communication. Positive knowledge upon such points relating to anatomical and pathological changes is alone desirable, if we would advance our subject in a scientific manner.





